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cHAPTER 16: developing sTRATEGIES FOR fRACTION cOMPUTATION (ADDITION AND SUBTRACTION)

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| **Representative TN State Curriculum Standards**  Fourth Grade  **Grade Level Expectation:**  0406.2.5- Add and subtract fractions with like and unlike denominators  0406.2.6- Solve problems involving whole numbers, fractions, and/or decimals using all four arithmetic operations.  **SPI’s:**  0406.2.5- Generate equivalent forms of common fractions or decimals and use them to compare size.  0406.2.8- Add and subtract proper fractions with like and unlike denominators and simplify the answer.  Fifth Grade  **Grade Level Expectation:**  0506.2.4- Develop fluency with addition and subtraction of proper and improper fractions and mixed numbers; explain and model the algorithm.  **SPI’s:**  0506.2.5- Solve addition and subtraction problems involving both fractions and decimals.  0506.2.6- Add and subtract proper and improper fractions as well as mixed numbers. | |
| *C:\Users\Kilie\Desktop\275984-L.jpg* | Time: 10 minutes to read the book and write out fraction addition and subtraction problems   * While reading the Hershey’s Fraction Book I will stop and ask students if the fraction is in lowest terms and to add to the next fraction I say. * If the two fractions have different denominators then I will stop and work the problem through with the students. * I will use fraction bars to demonstrate fractions with unlike denominators and then change them out to the LCM for the denominator. |

**Virtual Manipulatives**

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| **Adding and Subtracting Fractions with like denominators.**  <http://www.ixl.com/math/grade-5/add-and-subtract-fractions-with-like-denominators-word-problems>  Uses word problems to help students construct addition and subtraction problems for fractions. If the student is wrong it offers an explanation for the correct answer.  This Manipulative should take 3 minutes to demonstrate |
| **Adding and Subtracting Fractions Board Games**  <http://www.math-play.com/adding-and-subtracting-fractions-game.html>  Roll the dice and draw cards. The cards have questions concerning adding and subtracting fractions, if you get it right, you get to roll again but, if not, then you lose points.  This manipulative should take 5 minutes to demonstrate. I will also have the students |

**Part I. Activities in textbook**

**16.1-First Estimates**

\* estimate the sum or difference of two fractions. Deciding only if the number is more or less than ½, 1, 1 ½, or 2.

**Pizza Fractions. Chapter 16, page 313**

\*Students are given a word problem and use the pizzas to come up with the correct denominator (or slices) the pizza should have. I will provide paper plates and once we have agreed on a common denominator, students will draw their pizza slices and color the portion that was eaten (numerator).

**Rewrite Fractions with common denominator. Figure 16.6**

\*Use counters so that the numerator and denominator can be two different colors. Put them in groups and count up the colored counters. For example ¾+2/3 would change to 9/12 +8/12 and the counters would start out red and turn over to yellow side as you add the two numerators together. Sounds like a great activity – this is using the set model

**LCM Flash Cards. Activity 16.2**

\*Make flash cards with pairs of numbers that are potential denominators. Most should be less than 16. For each card, students try to give the least common multiple.

**Pattern Block Fractions**

\*Use pattern blocks to add and subtract fraction with like denominators.

**Part II. Lesson Plan**

Fraction Matchin’

<http://www.lessonplanspage.com/mathfractionmatchinactivityidea56-htm/>

This lesson is to help students match the LCM’s of fractions together to find the answer to addition and subtraction fraction problems with unlike denominator. On half of the 3 X 5 notecards write an unlike denominator addition or subtraction problem. On the other half of the note cards, write the corresponding common denominators to the problems on the other half. In random order, hand out the note cards and have the students find their matching partner and work the problem out.